

REMARKS:

Remarks on the amendments to the claim listing:

- Claim 1 to 18 are amended by suppressing the wording “characterized in that” which may be interpreted wrongly as delimiting the art.
- Claim 1, 5, 7 has been amended in an open form.
- Claim 7 has been amended in order to correct a number of minor informalities.
- Claim 13 is simplified in order not to replicate the referenced method of manufacturing.
- Claim 14 is amended for an incorrect reference and the quasi-simultaneous measurement to be practiced on the “slave” sample.
- Claim 19 is amended to a “method of use” as it is referencing a method of use. The wording of the listed use is corrected for clarity.
- Claim 30 is amended for characterizing in an open form the process of manufacturing of the system of entangled samples to be used by the method of use.

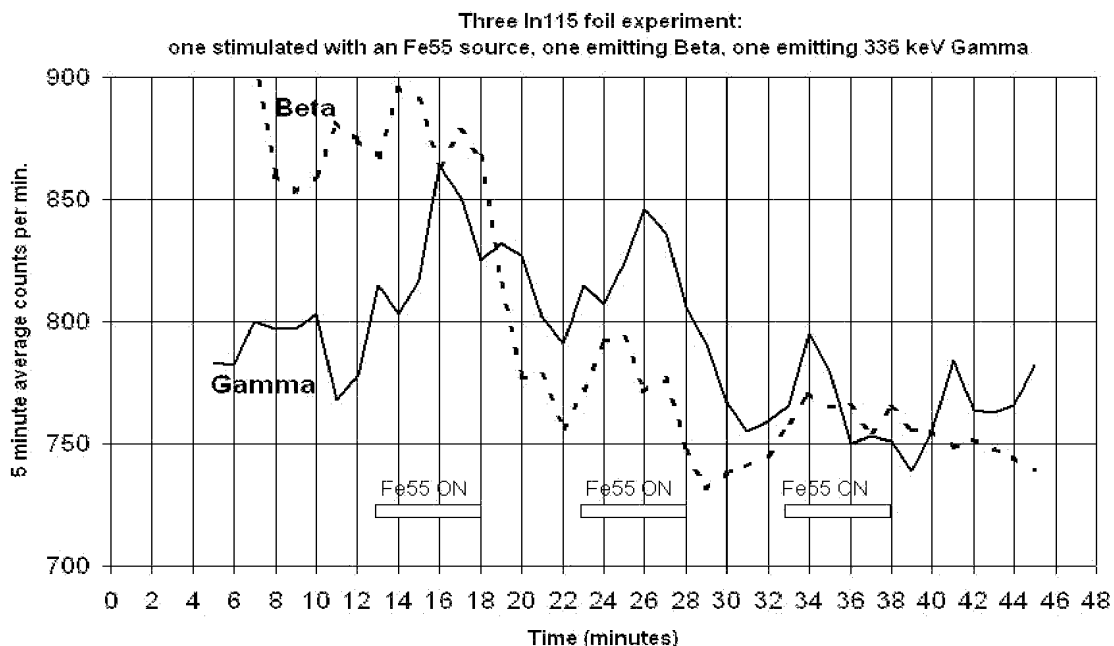
Appendix : Experimental Measurements

First experimental protocol: QUANTUM COMMUNICATIONS AT 12 METERS /

Indium foils / Fe-55

Experiment comprises the steps of preparing three excited Indium foils (the “entangled” samples) and carrying out the stimulation with Fe-55 :

- Indium foils are prepared together by irradiation using a CLINAC set at 6 MeV, for a total of 20 minutes irradiation.
- The indium foils are then separated and used in laboratories 12 meters away:
 - ✓ One Indium foil (the “master” sample) is locally stimulated by approaching a Fe-55 source (Fe ON tag on Figure below), then removed (end of Fe ON tag) and so on.
 - ✓ Another distant Indium foils (a “slave” sample) is measured inside a gamma spectrometer (336 keV channel) : The 336 keV gamma count of this distant Indium foil (which is not stimulated) is depicted in the graph below.
 - ✓ Another distant Indium foil (a “slave” sample) s is measured inside a beta spectrometer : The beta count of this distant Indium foil (which is not stimulated) is depicted in the graph below:



Second experimental protocol: QUANTUM COMMUNICATIONS AT 1600 METERS /**Indium foils / Fe-55**

Experiment comprises the steps of preparing two excited Indium foils (the “entangled” samples) and carrying out the stimulation with Fe-55 :

- Indium foils are prepared together by irradiation using a CLINAC set at 6 MeV, for a total of 20 minutes irradiation.
- The indium foils are then separated and used in laboratories 1600 meters away:
 - ✓ One Indium foil (the “master” sample) is locally stimulated by approaching a Fe-55 source (Fe ON tag on Figure below), then removed (end of Fe ON tag) and so on.
 - ✓ The other distant Indium foils (the “slave” sample) is measured inside a gamma spectrometer (336 keV channel) : The 336 keV gamma count of this distant Indium foil (which is not stimulated) is depicted in the graph below.

